

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

GEOGRAPHIC VARIATION IN *CITELLUS TERETICAUDUS*.

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(Contribution from the Museum of Vertebrate Zoology of the University of California.)

In studying the ground squirrels of California for the purpose of preparing a general synopsis of the same, it has been found necessary to make comparisons with material from other regions. In doing this with *Citellus tereticaudus* the writer has become convinced of the desirability of recognizing by name a new subspecies from Arizona, as follows:

Citellus tereticaudus arizonae, subsp. nov.

ARIZONA ROUND-TAILED GROUND SQUIRREL.

Type.—From Tempe, Maricopa County, Arizona; no. 25485, Univ. Calif. Mus. Vert. Zool.; ♀ adult, in complete summer pelage; collected by H. S. Swarth, May 30, 1917; orig. no. 10596.

Characters.—As compared with *Citellus tereticaudus tereticaudus*, *C. t. chlorus* and *C. t. eremonomus*, of the Colorado and Mohave desert regions west of the Colorado River, coloration of upper surface more reddish, and tail shorter.

Color.—On back, top of head and tail, deep pinkish cinnamon, becoming paler on neck, shoulders and sides, due to the greater extent of the minute white tipplings to the hairs. Sides of head, lower surface, and feet, dull white.

Measurements.—Of type: Total length, 243 millimeters; tail vertebrae, 76; hind foot, 35. Eight adults from the Arizona side of the Colorado River valley average: Total length, 234.1; tail vertebrae, 76.0; hind foot, 35.1.

Remarks.—As material accumulates representing more generally the range of *Citellus tereticaudus*, it becomes clearly apparent that at least four subspecies are worthy of recognition, distinguished rather easily from one another by tone of coloration. *Citellus tereticaudus eremonomus* Elliot, of Death Valley, Inyo County, California, exhibits a wood brown

tone; *C. t. chlorus* Elliot, of the northwestern arm of the Colorado Desert, in Riverside County, California, is avellaneous; *C. t. tereticaudus* (Baird), of the Colorado and Mohave deserts, in Imperial, extreme eastern Riverside, and San Bernardino counties, California, is light pinkish cinnamon; while *C. t. arizonae*, of southwestern Arizona, is deep pinkish cinnamon. The color-terms here used are taken from Ridgway's "Color Standards and Color Nomenclature," 1912.

That the last two specified forms exist, and that the Colorado River is the dividing line between them, was evidently believed by Mearns, who says of *Citellus tereticaudus* (Bull. 56, U. S. Nat. Mus., 1907, pp. 336-337): "Specimens from the Tule and Yuma deserts, to the eastward of the Colorado River, are more reddish than those taken at the same season on the western part of the Colorado Desert." The present writer (Grinnell, Univ. Calif. Publ. Zool., vol. 12, 1914, pp. 224-225) went into the matter more in detail, showing that the characters hold right up to the river, but he did not at that time have at his disposal sufficient material to justify separation of the races by name.

The type-locality of *Citellus tereticaudus*, according to Mearns (loc. cit.), is "Old Fort Yuma, San Diego [now Imperial] County, California (on the right bank of the Colorado River, opposite the mouth of the Gila River and the present town of Yuma, Arizona)."